CITY OF PALOS VERDES ESTATES

DEPARTMENT OF
PUBLIC WORKS
(213) 378-0383

CITY OF PALOS VERDES ESTATES
INCORPORATED 1939
CALIFORNIA

CITY HALL
PALOS VERDES ESTATES
CALIFORNIA 90274

NEGATIVE DECLARATION

CITY OF PALOS VERDES ESTATES, CALIFORNIA

GENERAL PLAN SAFETY ELEMENT

Project Description

This project consists of the adoption of the Safety Element of the General Plan of the City of Palos Verdes Estates, California as required by the State of California Government Code Section 65302.

Findings

In view of the fact that the conclusions of the Safety Element do not propose any adverse alterations to the environment as defined under the California Environmental Quality Act it is hereby determined that this project will not have a significant effect on the environment.

Initial Study

The initial study for this project is the second draft of the proposed Safety Element prepared by George Taylor, Director of Public Works/Planning Director of the City of Palos Verdes Estates. Copies of the initial study can be obtained from the office of the Director of Public Works, 340 Palos Verdes Estates, California 90274.

Posted: May 25 1975
P.V. Library
City Hall
P.V. Country Club

CITY OF PALOS VERDES ESTATES, CALIFORNIA

SAFETY ELEMENT

OF THE GENERAL PLAN

SEPTEMBER

1975

SAFETY ELEMENT

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SAFETY ELEMENT

CITY OF PALOS VERDES ESTATES, CALIFORNIA

INTRODUCTION

Authority for Safety Element

The Government Code of the State of California requires that each City prepare and adopt a Safety Element for the City's General Plan. Section 65302.1 reads in part as follows:

> A Safety Element for the protection of the community from fires and geologic hazards including features necessary for such protection as evacuation routes, peak load water supply requirements, minimum road widths, clearance around structures, and geologic hazard mapping in areas of known geologic hazard.

DEFINITIONS

The State of California Guidelines for preparation of the safety element contain the following definitions:

Acceptable Risk: The level of risk below which no specific action by local government is deemed to be necessary.

Unacceptable Risk: Level of risk above which specific action by government is deemed to be necessary to protect life and property.

Avoidable Risk: Risk not necessary to take because individual or public goals can be achieved at the same or less total "cost" by other means without taking the risk.

SCOPE AND NATURE OF SAFETY ELEMENT

Palos Verdes Estates has prepared a safety element which takes into consideration the unique characteristics of the city and the adjoining environment.

General Policy

The City Council has voted that in order to retain the unique rural natural environment of the City, such as its large natural parkland areas with their heavy growth of natural brush and trees together with large stands of trees and foliage in the residential areas, and the unique ocean bluffs and beaches comprising a marine reserve, that the level of related risks from fire and accidental injury are higher than in normal communities, but are considered acceptable. In addition, development of the city's streets and water supply due to the extremely steep terrain of the area does not permit street widths grades, and water pressure that are normally expected in other communities. Again these "deficiencies" together with their related hazards have in general been accepted by the community as acceptable risks.

Major disaster flood hazards for the community have been controlled by construction of storm drain systems both by the Los Angeles County Flood Control District and the City. Additional improvements are programmed and all developments, including single family construction are reviewed for potential flood problems.

Generally speaking the degree of review for each new development takes into consideration the possible safety hazards involved and where unccept-able safety risks are found specific action is taken to reduce the risk to acceptable levels.

Additional efforts to control safety hazards from fire together with identification of these hazards are set forth in appendix A attached hereto. This appendix, prepared by the Fire Chief is supported by the City Council and they will continue to update the fire fighting ability of the City within its realistic ability to do so. The Council will also continue to review the water supply systems with California Water Company to assure proper fire fighting capacity.

In relation to the individual property owners protection, the Council encourages the implementation of smoke detection alarms and sprinkler systems for existing properties where appropriate.

GEOLOGIC HAZARDS

Geologic hazards are defined in the Seismic Safety Element of the General Plan.

The community is free of known active faults and major slide areas. There have been in the past and probably will occur again in the future ocean bluff erosion and rock falls. All of the bluff areas are subject to this hazard and therefore prior to development in this area detailed geologic studies are required. If these studies indicate unacceptable risks are avoidable, it is required that the necessary steps be taken to eliminate the unacceptable risk.

LAND USE AND CIRCULATION RELATIONSHIP

The City's land use and circulation elements of the general plan have taken into account the concern for development of the City.

These elements together with the City Code limit remaining development of the City to residential uses and provide for control of fire and geologic hazards.

No additional controls are deemed necessary at this time.

EVACUATION ROUTES

The City, due to its terrain, has only three routes of total evacuation. These routes are Palos Verdes Drive West, Palos Verdes Drive North and Granvia Altamira. Depending on the type and location of the disaster, these routes should serve adequately.** Concern for organized evacuation has been expressed by the Chief of Police as shown in the attached Appendix B.

** In addition, 4 1/2 miles of undeveloped ocean front provides a secondary evacuation potential.

SAFETY ELEMENT RELATIONSHIPS

Relationship With Other Elements of the General Plan

The safety element is closely related to the seismic safety element, the land use and circulation element, and the open space and conservation element.

Safety hazards can be a decisive factor in consideration of proposed development type and location.

The City's building code also provides basic guidelines for safe construction as does the City's fire code. In addition, the City has adopted a resolution of intention to update its grading ordinance which places strong emphasis on geologic protection.

Relationships With Other Agencies

The safety element and its implementation should be coordinated closely with the surrounding communities particularly in the area of disaster preparedness, mutual aid and fire response.

Other agencies of aid to the City include, but are not limited to:

1. The American Red Cross
2. The Federal Disaster Assistance Administration
3. California Office of Emergency Services
4. The California Division of Industrial Safety
5. State and County Health Departments

Relationship With Environmental Impact Report Procedures

The federal, state and local environmental impact regulations provide a key instrument for implementation of safety protection when any development within the City or surrounding areas is proposed.

It is therefore imperative that appropriate environmental impact reports be required for any project development or activity which might create a safety hazard or reduce present safety standards.

IMPLEMENTATION

General Comments

The implementation of the policies of the City of Palos Verdes Estates with respect to safety hazards can be accomplished by adherence to the existing regulation of the City relating to Environmental Impact Procedures, and Building and Fire Codes together with implementation of the Seismic Safety Element.

Periodic review and updating of the City's ordinances relating to safety should be made.

Conclusions

To provide for the protection of life and property the City should:

1. Support to the best of its ability the recommendations contained in Appendix A & B.
2. Continue the City's existing Building, Fire, and Environmental Ordinance restrictions on potential safety hazards.
3. Provide for the implementation of the City's Seismic Safety Element.
4. Work with all recognized safety agencies to develop and implement reasonable safety standards.

APPENDIX A

CITY OF PALOS VERDES ESTATES

OFFICE OF
FIRE CHIEF
(213) 378-4275

CITY HALL
PALOS VERDES ESTATES
CALIFORNIA 90274

August 11, 1975

TO: George C. Taylor, Public Works Director/City Engineer

FROM: John S. Christopher, Fire Chief

SUBJECT: Safety Element Comments

A. Identify Existing Fire and Life Hazards

1. Large unbroken brush areas generally throughout the city, essentially in canyons and on steep hillsides. See map. Many homes on rims.

2. Large area of city is heavily grown with eucalyptus trees. Homes generally have wood shingle roofs, Valmonte/La Selva tree area. Generally in northern portion of city.

3. Many homes located throughout the city are over 2500 square feet in area, are multi-story with very high value contents and no smoke or fire detection warning devices.

4. Several four story equivalent buildings in commercial zones of city.

5. Large undivided and unprotected attic spaces, in older commercial buildings with multiple occupancies.

6. Large undivided and unprotected spaces within commercial and institutional occupancies throughout the city.

7. Ceramic tile roofs on commercial, institutional and many residences make ventilation of fires difficult.

8. Many areas in city are more than five minute response time from fire station.

9. Palos Verdes Players Theater, large groups of people, quantities of combustibles in Malaga Plaza.

10. Several miles of steep cliffs 200 ft. in height dropping to the ocean below, cover generally the westerly portions of the city.

B. Evaluation of Existing and Potential Fire and Life Hazards

1. Well started brush fires may quickly overwhelm the city's fire suppression forces leading to loss of exposed homes. Particularly those homes having wood shingle roofs or situated on canyon rims and steep hillsides. Where heavy brush extends up to homes, those homes are also directly exposed to the flames. Mutual aid assistance from South Bay cities and the L. A. County Fire Protection District limits somewhat the hazards to destruction of homes, under normal climatic conditions. Unusual weather conditions such as Santa Ana winds blowing increase the destruction potential immensely. The canyons, hillsides and some other undeveloped areas are covered with heavy growths of the fastest burning, most dangerous vegetation in the world. Embers picked up by the wind may travel hundreds of feet and still remain capable of igniting wood shingle roofs and unburned brush.

   Green belts of fire resistant plantings and fire retardant coatings for wood shingle roofs are vital to provide an acceptable level of fire risk for the brush and tree areas. This will give our fire suppression forces a reasonable chance to control and extinguish such fast moving fires under normal conditions. Brush clearance from structures to a minimum of 30 feet, maintaining ornamental trees and shrubbery free of dead limbs and branches, maintaining a ten-foot clearance between trees and fireplace chimneys with no branches overhanging chimneys are essential to an acceptable level of risk.

2. Large undivided, unprotected and in many cases hidden attic spaces within commercial and institutional buildings in particular, allow fire to spread quickly and undetected. This characteristic may allow fire to involve more than one business within a building. Ventilating the fire through holes cut in the roof allows smoke and superheated gases (over 1,000° F), to escape vertically, tending to concentrate the fire towards the openings and generally reducing the lateral spread of the fire below. In turn, this permits firefighters to enter from below, locate, confine and extinguish the fire with the least possible damage to the building due to water use and flame spread.

   A moderate size fire in one of those buildings may quickly overtax the fire department's control of the fire, due to our inability to ventilate quickly and to the drain on manpower required to attack fires in more than one business occupancy, simultaneously. Even small diameter hoselines inside buildings require an absolute minimum of two men to handle. Mutual aid assistance will provide manpower sufficient to control the fire after perhaps a fifteen-minute delay in response time.

   The best solution to this fire problem would be installation of automatic sprinklers on a supervised system within all commercial buildings. Many years of experience shows that ninety-seven percent

of all fires occurring in sprinklered buildings are extinguished or controlled by the automatic sprinklers. In this way only those buildings that cause unusual fire problems will have to pay for the above average costs for their own protection by installing and maintaining automatic sprinkler systems. In most cases, the money spent is recoverable in lower fire insurance premiums.

A secondary solution would include installation of a supervised smoke or heat detection warning system. Almost all fires if detected early enough, may be extinguished with a cup of water. A warning system that will alert the fire department immediately after a fire is detected will go a long way toward assuring control and extinguishment of the fire quickly, with the least amount of damage.

3. Large undivided and unprotected spaces within commercial, institutional and residential structures may permit undetected fires to extend quickly. The circumstances and solutions for this problem will be the same as in Item 2 on the preceding page.

4. The "tree area" in the northern part of the city is a potential conflagration breeder perhaps as dangerous as that of the brush areas. The solution to this problem will be the same as for Item 1 on the preceding page.

5. The Insurance Services Office (ISO), formerly the National Board of Fire Underwriters, schedule for grading a city's fire defenses, recommends that numbers of fire companies needed are directly related to the largest fire flow required within that city. For Palos Verdes Estates, our largest fire flow required is 3500 gallons per minute, for the Malaga Cove Plaza. The grading schedule recommends a minimum of three (3) engine companies and one (1) ladder truck company where the required fire flow is 3500 GPM. Properly located, two fire stations should reasonably meet that ISO recommendation, in this city. For fires occurring in single family residences minimum protection should be two engine companies and a truck company.

6. Several areas throughout the city do not have water distribution systems adequate for the large fire flows they may be called upon to deliver. Small diameter mains, poor gridding of mains, long dead end mains of small diameter all contribute to this problem. The California Water Services Company has for the last three years been successfully working to correct the worst of these areas. Efforts directed toward eliminating these deficiencies should be vigorously continued. Where the system is well gridded, six inch (6) diameter mains are the minimum size acceptable for fire hydrants. On dead end mains, eight inch (8) diameter is the minimum acceptable. Minimum fire hydrant flow capability of 1500 GPM

at 20 pounds per square inch residual pressure should be the goal. These minimums should be graduated upwards in accordance with the ISO Grading Schedule required fire flows for more hazardous locations.

7. Narrow winding roads make response times excessive to much of the city. Forty percent of the homes are more than five minutes response time from the existing fire station. Almost all individuals will die within six minutes after breathing stops. Permanent brain damage can occur after four minutes without breathing.

   Flashover is a term used to describe the condition where the entire surface of a room bursts into flames at one time. Flashover can occur in a room when the temperature reaches 1,000° F. Results of many test fires conducted by the National Fire Association (NFPA), in ordinary combustibles and in typical residential type rooms indicate that that temperature may be reached within six minutes after ignition.

   Complete protection is impossible, of course, but a response time of five minutes or less can reasonably be assured if a second fire station and manpower are provided. In addition, smoke detectors in each home will make earliest detection of fire possible and give occupants time to escape.

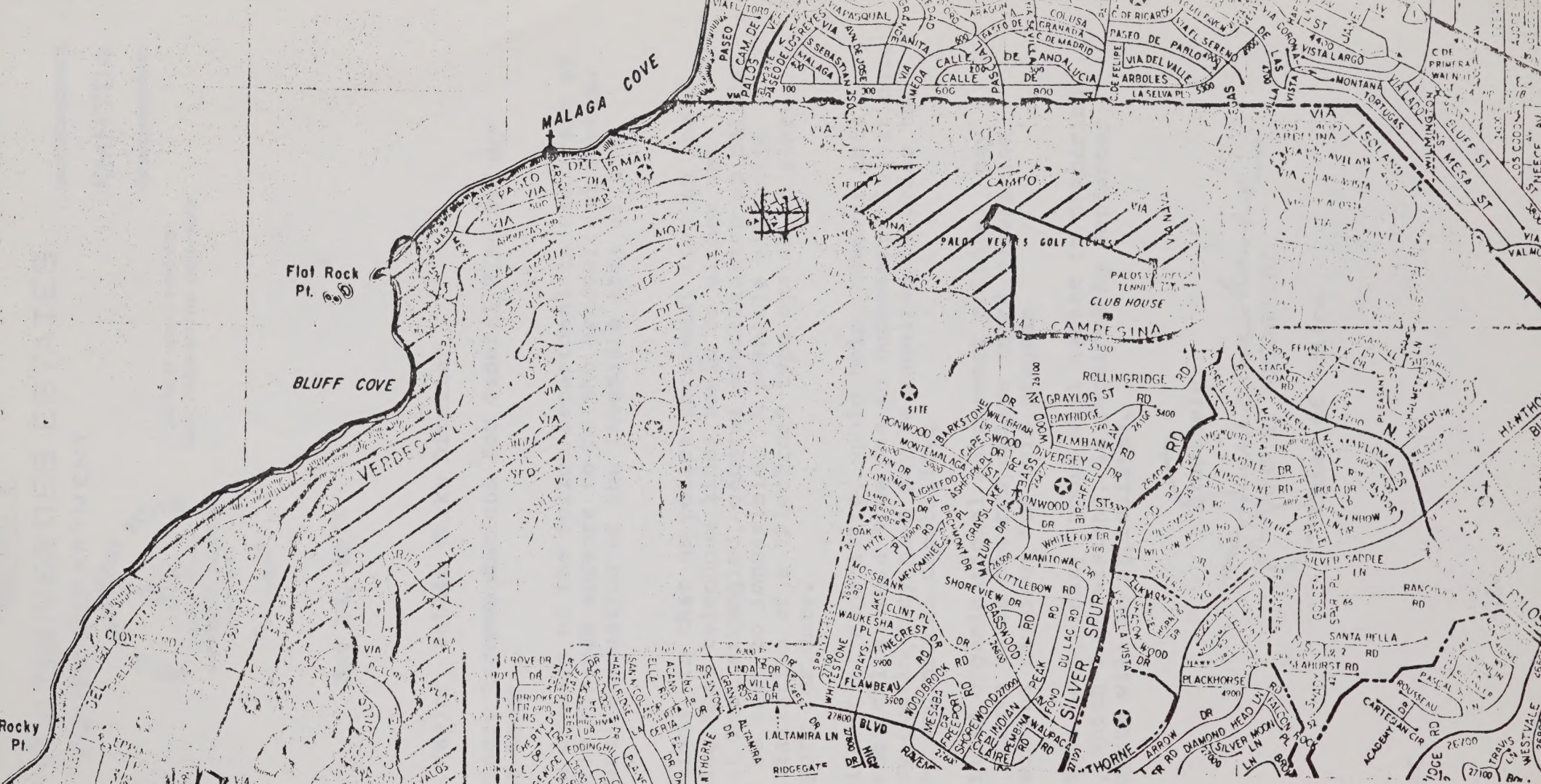
8. Many homes and other buildings do not display street numbers that are easily visible from any position on the street. After dark, when a small fire occurs or on a rescue response and where no one is waiting to direct the fire department to the emergency, much additional time is wasted searching for the emergency location. This unnecessary delay in service could be eliminated if all lots were required to post street numbers in a position easily seen from the street, numbers at least four inches high, either lighted or in colors sharply contrasting with the background.

9. Efforts should be directed toward strengthening of mutual aid commitments. Automatic first alarm mutual aid agreements should be sought out with South Bay cities and the Los Angeles County Fire Protection District. Our fire department capability should be strengthened wherever needed to make such automatic aid beneficial to all parties involved. In any case, a reciprocal capability to provide mutual aid out is a reasonable and absolutely essential goal. A second fire station and small increase in manpower will permit this city to participate fully in such plans without a serious temporary decrease in fire suppression capability for Palos Verdes Estates.

10. Mobile Intensive Care Paramedic Service is not now available to our residents. Efforts should continue to be directed toward providing such service as soon as possible consistent with good planning.

Jack Christoph

JSP/gj


MALAGA COVE
Flat Rock Pt.
BLUFF COVE
PALOS VERDES GOLF COURSE
CLUB HOUSE
CAMPESINA
SILVER SPUR
Rocky Pt.
LUNADA BAY
Resort Pt.
HAZARDOUS BRUSH AREAS
BUSINESS & MULTIPLE RESIDENTIAL
HEAVILY TREE'D AREA

CITY OF PALOS VERDES ESTATES

POLICE DEPARTMENT

KMH704

JOHN E. DOLLARHIDE
CHIEF OF POLICE
(213) 378-5211

340 PALOS VERDES DRIVE WEST
PALOS VERDES ESTATES, CALIF. 90274

May 28, 1975

TO: George Taylor, Public Works Director

SUBJ: Preliminary Recommendations for General Plan Safety Element Report.

The main concern of the Police Department in the event of fires and Geologic Hazards appears to be the generalized systematic organizational evacuation of the immediate area of the catastrophy.

Being unique, in that no police personnel live in the city, and assuming that telephone lines would be either out completely, or at best strangled, general mobilization of police personnel would be next to impossible. A possible alternate might be the installation of a "PlecTron" type system to alert personnel to report for duty.

Parallel digital capability, would help, however this is probably impractical at this time due to budgetary limitations. A balanced policy contingency plan may be required in order to show a responsive reciprocal capability.

Systematized organizational management policies, may in the long run, prove to be the responsive third-generation time-phase projections required for this program.

I hope this preliminary report will assist in preparing the final draft, which I understand, is required by September 1975. Your comments will be appreciated.

Sincerely,

JOHN E. DOLLARHIDE
Chief of Police

JED:dc

cc: City Manager